REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed June 14, 2005. Reconsideration and allowance of the application and pending claims are respectfully requested.

I.   Claim Rejections - 35 U.S.C. § 112, Second Paragraph

Claims 2, 16-19, and 21 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

First, the Office Action states that there is no antecedent basis in claims 2, 18, and 19-22 for the term "selecting". Applicant notes that the term "selecting" only appears in claim 2. Applicant has amended claim 1, from which claim 2 depends, to provide proper antecedent basis for the term "selecting". In view of that amendment, Applicant submits that all claims currently have antecedent basis for their terms.

Second, the Office Action also objects to the use of the term "system" in claim 16. Applicant notes that it is well established in the law that the Applicant can be his own lexicographer and, as such, can chose the terms used in the Applicant's claims. Applicant further submits that there is ample support for the term "system", as used in claims 16 and 17, in Applicant's specification. Accordingly, Applicant has respectfully declined to amended claim 16 or 17.

Third, it is stated in the Office Action that "it is not clear to the Examiner what is effected in Claim 18 and intervening Claims 19, 22 via the host and the request" and that, because of the alleged lack of understanding, no art has been applied to those claims. Applicant does not understand the Examiner's objection and requests that the Examiner explain more clearly exactly what he does not understand, as Applicant

believes clams 18, 19, and 21 (Applicant notes that, until this Response, there was no claim 22) to be clear and unambiguous.

Moreover, Applicant objects to the Examiner's refusal to properly examine claims 18, 19, and 21. Irrespective of whether the Examiner believes that a given limitation is indefinite, *the Examiner still has a duty to consider the limitation to the extent possible in determining whether the claims are allowable over the prior art*. As is provided in the Manual for Patent Examining Procedure (MPEP) Section 2143.03 (emphasis added):

> *A claim limitation which is considered indefinite cannot be disregarded.* If a claim is subject to more than one interpretation, at least one of which would render the claim unpatentable over the prior art, the examiner should reject the claim as indefinite under 35 U.S.C. 112, second paragraph (see MPEP § 706.03(d)) and should reject the claim over the prior art based on the interpretation of the claim that renders the prior art applicable. Ex parte Ionescu, 222 USPQ 537 (Bd. Pat. App. & Inter. 1984) (Claims on appeal were rejected on indefiniteness grounds only; the rejection was reversed and the case remanded to the examiner for consideration of pertinent prior art.). Compare In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970) (if no reasonably definite meaning can be ascribed to certain claim language, the claim is indefinite, not obvious) and In re Steele, 305 F.2d 859,134 USPQ 292 (CCPA 1962) (it is improper to rely on speculative assumptions regarding the meaning of a claim and then base a rejection under 35 U.S.C. 103 on these assumptions).

In view of the above, it is improper to disregard a given claim limitation. In this case, the Examiner has even disregarded entire claims. It is clear that the Examiner's disregard of these claims was improper. For this reason, if a further Office Action is to

be issued, the Examiner must provide a prior art rejection against claims 18, 19, and 21, or indicate that those claims contain allowable subject matter.

II.   Claim Rejections - 35 U.S.C. § 102(b)

Claims 1-17 and 20 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Glover (U.S. Pat. No. 5,751,733). Applicant respectfully traverses this rejection.

It is axiomatic that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W. L. Gore & Associates, Inc. v. Garlock, Inc.,* 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b).

In the present case, not every feature of the claimed invention is represented in the Glover reference. Applicant discusses Applicant's claims and the Glover reference in the following.

A.   The Glover Disclosure

Glover discloses a disc drive storage system that employs sector level and track level error corrections systems (ECSs). Glover, Abstract. As is described as Glover:

> A disc storage system is disclosed which comprises a sector
> level ECS for correcting errors within a sector during readback, and a
> track level ECS for correcting a sector *that becomes unrecoverable at*
> *the sector level either because the number of hard errors exceeds the*
> *error correction capability of the sector redundancy*, or because the

sector is unreadable due, for instance, to an inability to synchronize to the sector data. The sector level ECS is preferably implemented using a high order Reed-Solomon code capable of correcting multiple random burst errors, and the track level ECS is preferably implemented using a less complex error correction code such as byte XOR or a first order Reed-Solomon code.

[Glover, column 3, lines 47-59, emphasis added]

As is apparent from the above excerpt, Glover's ECS corrects sectors that become unrecoverable because the number of errors exceeds the error correction capability. As is further described by Glover:

As mentioned above, *there are two situations where a data sector on the disc may become unrecoverable*. First, the sector may become entirely unreadable due to an inability to synchronize to the sector data (because, for example, the preamble 6 or sync mark 8 have been corrupted by a defect on the medium). The other possibility is that the sector becomes uncorrectable; that is, the number of hard errors exceeds the error correction capability of the sector level ECS. *In these situations, the storage system pauses the data transfer and executes the track level error correction steps to recover the lost sector using the redundancy sector.*

From this excerpt, it is apparent that Glover system pauses data transfer *when data on the storage device is unrecoverable*, i.e., when the number of hard errors exceeds the error correction capability of the sector redundancy, or because the sector is unreadable due, for instance, to an inability to synchronize to the sector data.

Significantly, Glover does *not* disclose pausing data transfer when the number of errors exceeds an established threshold that is below the number of errors that exceeds the error correction capability of the sector redundancy. Indeed, Glover does

not anticipate establishing a threshold at all. Instead, the natural limitations of system dictate the limitations or "threshold".

B.   Discussion of Applicant's Claims

As is described above, Glover does not disclose pausing data transfer when the number of errors exceeds an established threshold that is below a maximum number of errors beyond which the errors are uncorrectable. The Examiner even *admits* this in the statement of the rejections under 35 U.S.C. § 103(a) (The Examiner states "Not specifically described in detail by Glover is the step whereby an error threshold feature is selected", Office Action, page 5, paragraph 4.2). As such Glover does not anticipate any of independent claims 1, 9, 16, or 20 which explicitly describe such a threshold. Accordingly, the rejection under Glover should be withdrawn at least for this reason.

Applicant further notes that, because Glover is silent as to establishing thresholds, it logically follows that Glover does not teach establishing a "full error threshold" *and* an "erasure threshold" as is explicitly required by independent claims 16 and 20.

III.   Claim Rejections - 35 U.S.C. § 103(a)

Claims 1-15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over <u>Glover</u> in view of <u>Inoue et al.</u> ("Inoue," U.S. Pat. No. 5,712,861) and <u>Zook</u> ("Zook," U.S. Pat. No. 5,600,662). Applicant respectfully traverses this rejection.

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the

prior art or generally available knowledge of one of ordinary skill in the art that would

lead that individual to the claimed invention. *See In re Fine*, 837 F.2d 1071, 5 USPQ2d

1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP)

section 2143 discusses the requirements of a *prima facie* case for obviousness. That

section provides as follows:

> To establish a *prima facie* case of obviousness, three basic
> criteria must be met. First, there must be some suggestion or
> motivation, either in the references themselves or in the knowledge
> generally available to one of ordinary skill in the art, to modify the
> reference or to combine reference teaching. Second, there must be a
> reasonable expectation of success. Finally, the prior art reference (or
> references when combined) must teach or suggest all the claim
> limitations. The teaching or suggestion to make the claimed
> combination and reasonable expectation of success must be found in
> the prior art, and not based on applicant's disclosure..

In the present case, the prior art at least does not teach or suggest all of the claim

limitations. Applicant discusses Applicant's claims and the applied references in the

following.

A.   Claims 1-8

Independent claim 1 provides as follows (emphasis added):

1.   A method for pausing a transfer of data during a Verify
command, the method comprising:

selecting at least one threshold value that is below a maximum
number of errors beyond which the errors are uncorrectable;

determining a number of errors detected in the data being transferred *during the Verify command*;

comparing the number of errors with the at least one threshold value; and

pausing the transfer of data during the Verify command *if the number of errors exceeds the at least one threshold value*.

In regard to claim 1, none of the applied references teach or suggest determining a number of errors detected in the data being transferred "during [a] Verify command" and pausing the transfer of data during the Verify command "if the number of errors exceeds" a threshold. Again, Glover says nothing about any thresholds. Regarding the Inoue and Zook references, the Office Action makes no statement that determining a number of errors are detected during a "Verify command".

Moreover, neither Inoue nor Zook mention that the pausing of the transfer of data occurs if the number of errors exceeds a threshold. As was noted by Applicant in the Background section of Applicant's specification:

> Verify commands of the prior art have some limitations in certain test environments. The conventional Verify command stops the operation of other computer functions by initiating an interrupt every time the command is run for a specified length of addressable locations. Processing these interrupts wastes processor bandwidth and inevitably slows down other functions even when no errors are discovered during the verification. The processor becomes occupied with the interrupt each time the Verify command is run, thereby slowing down the execution of the test and other functions of the computer system.
>
> [Applicant's specification, page 4, lines 23-30]

Applicant submits that the Examiner must establish that the Inoue and Zook systems are not similar to the above-described prior art systems and, therefore, only pause data transfer if an established threshold has been exceeded.

In view of the foregoing, Applicant submits that claim 1, and dependent claims 2-8, are allowable over the applied combination, and that the rejection should be withdrawn.

B.   Claims 9-15

Independent claim 9 provides as follows (emphasis added):

9.   A system for pausing a transfer of data during a Verify command, the system comprising:

means for providing a full error threshold value that is below a maximum number of errors beyond which the errors are uncorrectable;

means for determining the number of full errors in data being transferred from a data storage means *during the Verify command*;

means for comparing said number of full errors with said full error threshold value; and

means for pausing the transfer of data during the Verify command if said number of full errors exceeds said full error threshold value.

None of the prior art references teach means for determining the number of full errors in data being transferred from a data storage means "during [a] Verify command" or "means for pausing the transfer of data during the Verify command if said number of full errors exceeds said full error threshold value" for reasons described above in relation to claim 1. Accordingly, Applicant submits that claim 9,

and dependent claims 10-15, are allowable over the applied combination, and that the rejection should be withdrawn
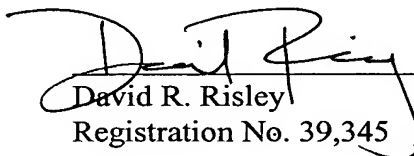
IV.　Claims 18, 19, and 21

Applicant notes that no prior art rejections have been made against claims 18, 19, and 21. In view of this, Applicant requests that the Examiner identify these claims as containing allowable subject matter, or present a proper prior art rejection as is required by MPEP Section 2143.03 (see discussion of the rejections under 35 U.S.C. § 112, paragraph two).
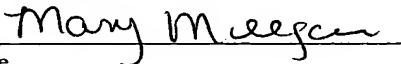
CONCLUSION

Applicant respectfully submits that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

David R. Risley
Registration No. 39,345

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Alexandria, Virginia 22313-1450, on
7-26-05 .

Signature